

## ABSTRACT OF THE DISCLOSURE

A Mach-Zehnder interferometer optical switch and a Mach-Zehnder interferometer temperature sensor include two optical  
5 waveguides having refractive index temperature coefficients with opposite signs, the two optical waveguides being in the vicinity of each other at two locations such that two directional couplers are provided at the two locations and including respective optical waveguide arms between the two  
10 directional couplers.